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General interest, scientific, and religious periodicals responded to the theory of evolution in 1925 with the same opinions but slanted their coverage to appeal to different readerships. "Scientific American" and "Current History" differed only stylistically in their coverage of the "Australopithecus africanus" discovery. Articles and editorials in the three types of periodicals defended evolutionary theory and freedom of rational thought from fundamentalist opposition in the months prior to and during the Scopes trial, but the non-scientific magazines did not expand their coverage to challenge their readers to explore evolution on their own. (Thirty-two notes are included, and a 15-item bibliography is attached.) (Author/RS)

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EVOLUTION REPORTING IN 1925: HOW THE AUDIENCE DETERMINED COVERAGE

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Reader expectations rather than evolutionary stances determined differences in the style and content of the coverage of the fossil discovery Australopithecus africanus and of the John Scopes trial in 1925.

Current History and Scientific American covered the A. africanus story. Both magazines, directed at the educated class, used strong examples to explain evolutionary theory and the fossil's place within it. Although it romanticized the find in a dramatic lead, Current History, a general interest periodical, covered the story for its purely scientific interest. It mirrored much of the content of the Scientific American coverage and contrasted with the approach of other non-scientific periodicals.

As fundamentalist opposition to the teaching of evolution grew, popular, scientific and religious periodicals joined to support evolution and criticize opposition leader William Jennings Bryan. Their audiences shaped their presentations. Time explained the theory and tried to dispel myths; Scientific American criticized Bryan's scientific failings; Christian Century criticized his religious failings.

During the trial, both The Scientific Monthly and Christian Century argued for the compatibility of science and religion. Time focused on the circus atmosphere of the trial. All of the articles defended intelligent, logical assessment of natural laws against the attacks of blind fundamentalism.

Though they defended evolutionary biologists and other scientists, the non-scientific periodicals restricted their coverage of evolution itself to the theory's social impact. Instead of expanding their readers' interest in science for science's sake, they tailored the story to fit the public's supposedly limited interests.

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EVOLUTION REPORTING IN 1925:
HOW THE AUDIENCE DETERMINED COVERAGE

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General interest, scientific and religious periodicals responded to evolution in 1925 with the same opinions but slanted their coverage to appeal to different readerships. Scientific American and Current History differed only stylistically in their coverage of the Australopithecus africanus discovery. Articles and editorials in these three types of periodicals defended evolutionary theory and freedom of rational thought from fundamentalist opposition in the months prior to and during the Scopes trial, but the non-scientific magazines did not expand their coverage to challenge their readers to explore evolution on their own.

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Reader expectations rather than evolutionary stances determined differences in the style and content of the coverage of both the fossil discovery *Australopithecus africanus* and the John Scopes trial in 1925.

Current History and *Scientific American* covered the *A. africanus* discovery. Both magazines, directed at the educated class, used strong examples to explain evolutionary theory and the fossil's place within it. Although it romanticized the find in a dramatic lead, *Current History*, a general interest periodical, covered the story for its purely scientific interest. For the most part, it mirrored the content of the *Scientific American* coverage and contrasted with the approach of other non-scientific periodicals.

As fundamentalist opposition to the teaching of evolution grew, popular, scientific and religious periodicals joined to support evolution and criticize opposition leader William Jennings Bryan. Their audiences shaped their presentation. *Time* explained the theory and tried to dispel myths; *Scientific American* criticized Bryan's scientific failings; *Christian Century* criticized his religious failings.

During the trial, both *The Scientific Monthly* and *Christian Century* argued for the compatibility of science and religion. *Time* focused on the circus atmosphere of the trial.' All of the articles defended intelligent, logical assessment of natural laws against the attacks of blind fundamentalism.

Though they defended evolutionary biologists and other scientists, the non-scientific periodicals restricted their coverage of evolution itself to the theory's social impact. Instead of expanding their readers' interest in science for science's sake, they tailored the story to fit the public's supposedly limited interests.

EVOLUTION REPORTING IN 1925

As fundamentalists were agitating against evolutionary theory in the southern United States, Professor Raymond Dart was studying the major fossil discovery Australopithecus africanus in South Africa, half a world away. Current History, a magazine published by the New York Times, reported the discovery a month before Scientific American, a journal for the scientific community. The individual focuses of these two articles reflect the focus and tone of popular and scientific periodicals' coverage of evolution during the furor of the Scopes trial. The readership shaped the coverage of both this discovery and of the trial itself, revealing a long and continuing trend.

The development of the theories of evolution and relativity in the late 1800s and early 1900s alienated the public, who felt bewildered and belittled as science became more philosophically foreign and more mathematically complex. Most people do not have the years of education necessary to understand new developments in technology and medicine. The goals of a science reporter, therefore, should be not only to promote interest in and grant understanding of an issue, but to cultivate interest in the scientific questioning process itself. Only through knowledge can society control the world it has created.

Specialized scientific journals reach only those who are already interested, so the responsibility extends to more popular media. Current History met the goals adequately in 1925, but

contrasted with other popular periodicals, which often limited their coverage of the Scopes trial to personalized angles.

In April 1925 evolution was not yet headline news; John T. Scopes was not yet a household name. Current History gave the A. africanus story timely but not feature coverage. Scientific American published only a photograph at the time of the discovery, with a promise of full coverage in the coming issue. For the scientific journal, timeliness didn't seem to matter as much as a full investigation of the fossil's implications for evolutionary theory.

Although Current History covered the discovery for its newsworthiness and respected its readers' understanding of evolutionary theory, it surrounded the discovery with an aura of awe and mystery. The article's lead humanized the fossil and romanticized its origin in deepest darkest Africa.

> A four-year-old child is now the centre of attention in the scientific world. Emerging from the darkness that preceded man's dawn, this ages-old youngster may hold within its few mortal remains the secret of one step in man's evolution. The child has been named Australopithecus africanus after the land of its birth and death. Preserved within a bed of limestone . . . at a place called Taungs, Bechuanaland, South Africa, a childish fossil face and childish fossil brain have been found. For hundreds of thousands of years, probably, these relics have been preserved by nature 1

The lead reveals interesting stylistic characteristics of general interest periodicals and their effects in scientific reporting. The first sentence has a strong impact because the word "child" evokes the image of a human child capturing archaeologists' attention. This image, though misleading, effectively captured the readers' attention. The lead continued

to unnecessarily emphasize the specimen's youth, though its only importance is the disadvantage it presents for study and comparison with other anthropoids. The author also neglected to properly italicize the specimen's scientific name. Covering what it saw as a news event, Current History needed to draw its readers' attention to what for them was a relatively obscure topic and therefore didn't heed as carefully the scientific writer's need for clarity and accuracy.

By comparison the Scientific American lead was almost dry, focusing on the implications and questions surrounding the discovery.

> Another brilliant fossil find has just been added to the steadily growing group of man's racial ancestors and relatives. In semi-desert Bechuanaland, South Africa, . . . eighty miles north of diamond-famed Kimberley, there has just been found the almost perfect fossil skull and jawbone of an extinct creature described by its sponsor, Professor Raymond A. Dart . . ., as intermediate in type between the living anthropoid apes and man . . . .
>
> Where is this new find to be placed in the family tree of man and his ape cousins? What is its broader significance?2

The lead did convey considerable excitement over the find, contrary to the unemotional scientific stereotype. The superfluous mention of "diamond-famed Kimberley" associated with the "almost perfect fossil" highlight this discovery as a true archaeological treasure. The questions at the close of the lead classify this article as more of an enquiry than a news report. The month's delay in reporting this event was insignificant because, for the scientific world, such news can never get old. Anthropologists, archaeologists, biochemists, physiologists and physicists alike, all exploring the origins of man and his planet,

look to the findings of those in other fields to expand and corroborate their own knowledge, and Scientific American acts as their information pool. The lead didn't need to romanticize the subject to grab its readers' attention; their interest was guaranteed.

Once they had secured their readers' attention through separate means, the articles converged. Both listed evidence for considering the fossil a missing link and a support for evolutionary theory; both used careful language, hypothesizing rather than asserting.

Current History assumed understanding and acceptance of evolutionary theory and linguistic competence in its readers, who tended to be well educated. The author used proper technical and anatomical terms and then defined them, rather than only paraphrasing. The description of the skull's shape, which is important for comparison with humans and apes, read, "The skull is dolichocephalic, long and narrow and somewhat oblong in shape, while the face is leptoprosopic, relatively long and narrow."3 It also mentioned, "The lower jaw resembles in its front portion the famous Heidelberg jaw,"4 assuming reader familiarity with that particular fossil. Scientific American described the skull's shape extensively and compared it with human bone structure. The forward placement of the foramen magnum, the hole through which the spinal cord exits the skull, and the small, straight dull teeth both indicate upright posture; the former allows proper support of the head and the latter indicates the hands were free because the teeth couldn't be used as weapons.5 Homologous

structures are common evidence for evolutionary relationships, and both articles established A. africanus' position between man and apes through comparison of the skulls.

Both articles also examined the discovery's place in Darwinian theory. They cautiously assigned the title "missing link" to the fossil, avoiding conclusive language. Scientific American expressed hesitant, reserved excitement:

> Whether its kind actually did evolve, finally, into human form is by no means proved, but it appears to be very close to that animal stem from which man later sprung . . . . Thus does the theory of evolution, as applied to the descent of man, receive another and weighty vindication.6

Current History offered a similar promise, with many qualifiers:

> Yet there seems to be little doubt that there has been discovered a most important step in the evolutionary history of anthropoids, if not man, who arose from the same stock as the present apes . . . . Professor Dart has come to the conclusion that this new creature, believed to be intermediary between ape and man, was far further advanced than any living anthropoid ape. And it seems probable that . . . the Darwinian claim that Africa is the cradle of mankind will be substantiated.7

This general interest periodical took a pro-evolution stance, as did other popular and influential non-scientific publications, such as Time and Christian Century, indicating that the apparent opposition to Darwinism in 1925 was just a very vocal minority. Current History also didn't present the popular misconception of man's descent from monkeys, which is usually the heart of protesters' indignation. Instead it presented the accepted model of man's and apes' separate ascent from a common ancestor, hence the dichotomy between "anthropoids" and "man, who arose from the same stock." The inconclusive diction, such as "seems to be,"

"believed to be" and "it seems probable," could represent either scientific self-questioning or deference to unbelieving readers.

Although the above-quoted paragraphs have similar content, their placement within their respective articles differs, illuminating the different approaches of their magazines. Scientific American offered the proposal as a hypothesis before it presented evidence, according to the scientific method; Current History offered it as a tentative conclusion after the list of evidence, following the style of a literary essay.

As well as substantiating evolutionary theory as a whole, each article addressed a specific hypothesis of Darwinism. Since Darwin saw natural selection as a struggle for existence and since any creature must be clever and adaptable to survive the inhospitable desert climate of Africa, he proposed that Africa was the source of the human species.8 Current History, respecting its readers' ability to understand technical writing, quoted a long passage from Professor Dart's report on the discovery which explained A. africanus' advanced development in comparison with other apes and described the harsh climate of the discovery site, concluding "that it was only the enhanced cerebral powers possessed by this group which made their existence possible in this untoward environment."9

True to the scientific method, Current History also mentioned limitations to interpretations of the finding. The specimen's youth presented a disadvantage because immature apes are typically more human-like than are adult apes10 and the skull's exact geologic age hadn't yet been determined.11

After its lead, the Current History article took a mature methodical approach. Most of its style mirrored that of the Scientific American article. Current History magazine differed from its contemporaries. It wasn't flashy; it had a plain cover, scant illustrations and only a few ads on the back cover. It billed itself as "A month's world history"; it meant to be serious and intellectual and thus presented science for its scientific impact and interest, though it did feel it had to spice up its lead a bit.

In contrast, many popular periodicals emphasized the societal impact of evolutionary theory and discoveries according to society's interest, as if to justify their added coverage of a scientific issue. Time and Christian Century defended the right of biologists to seek and teach the facts of evolution, but did not challenge readers to seek the truth themselves. They kept to topics and angles that were familiar for fear of alienating a supposedly disinterested public. In its defense of evolutionary theory, The Scientific Monthly explored and reaffirmed the theory's scientific validity and discussed its philosophical and religious implications. It did not restrict itself to its defined field as a scientific journal.

By June 1925 the fundamentalist opposition had flared into an attack. As is usual during a controversy over an issue about which the public may be ignorant, experts were called forth to explain the theory and answer the fundamentalist attack. In its June 1 article "Whence Man?," Time magazine printed one of these testimonies to educate and reassure its readers. Although it

respected its readers' intelligence, the article was concerned more with the theory's social impact than with its technical merits. It also exhibited the lay tendency to lump evolutionary biologists, ecologists, microbiologists, archaeologists and nuclear physicists into one huge mystic category even when discussing a very specific concrete topic. The first sentence perpetuated the stereotype that scientists are asocial higher beings who inhabit a separate plane from humanity: "Scientists do not like to be called from their laboratory, but ever and again they are." The article summarized the content of a speech made by this reluctantly summoned entity, "scientist" Richard Swann Lull. It listed and explained the common evidences for evolution and highlighted some important distinctions. Common popular misconceptions include equating Darwinism with broad evolutionary theory, assuming that evolution means simply that man descended from monkeys and assuming that evolutionists are strictly atheists. Lull "explained evolution, not Darwinism. Darwin was only one of those who have contributed to the doctrine . . . ." Instead of focusing on descent, the article focused on morphology, the comparison of similar structures. In its closing segment, entitled "Evolution and Religion," the article reassured its Christian readers. Although evolution, which must be accepted as fact, requires its believers to reject the literal stories of the seven days of direct creation and of the flood, "It leaves fully open the possibility of believing in potential creation, of a Creator having ordered things so that this evolution would come about through the ages."12

Proponents of evolution wished not only for the public to be educated about evolution, but for William Jennings Bryan, the fundamentalist opposition leader and later the prosecutor in the Scopes trial, to learn about what he protested. Scientific American reported a speech given by Professor Edward Rice of the American Association for the Advancement of Science. Bryan had recently joined the association, and "it [was] hoped he [would] become letter-perfect in the scientists' point of view, (whether he [would accept] it is another question)."13 Rice maintained, "There is not -- or need not be -- any quarrel between religion and science over evolution" and that Bryan's objections arose from confusions, distortions and illogical tenacity. While Darwin had provided evidence against his own theory within his work, Bryan consistently ignored and denied scientific data.14 Here Scientific American restricted itself to its chosen field and did not discuss the other facet of Rice's speech, which had been covered by Christian Century months earlier.

Instead of supporting Bryan's "Christian" argument, Christian Century, a respected non-denominational Protestant magazine, opposed his damaging attack. It also covered Rice's speech, but printed quotes that focused on Bryan's failings as a Christian rather than on his failings as a scientist. The Scientific American report had adopted many of Rice's ideas as its own by paraphrasing much of his speech. Christian Century quoted long passages with little reporter comment. It let Rice's damaging statements stand by themselves and offered no defending refutation. Rice presented Bryan as more of a danger to

Christianity than to science and stressed the need for more open-mindedness and less dogma, hoping that the controversy would end in "the alliance of a more scientific religion and a more religious science."15

But the controversy didn't end; it got worse, culminating in the Scopes trial in July. Scientists from many fields, who according to their stereotype are an unemotional, misanthropic, atheistic lot, wholeheartedly joined in an emotionally charged defense of the schoolteacher. The Scientific Monthly ran a two-month feature section, "Evidences for Evolution," a collection of articles by various authors explaining and supporting evolutionary theory, vindicating evolution to fundamentalists and in some cases even reconciling evolution with religion.

An important characteristic of both journalists and scientific writers is their avoidance of inflexible assertions. Scientists express their awareness of their own fallibility in their writing through qualifying remarks. Some of these Scientific Monthly articles lost this quality because of frustration over the opposition. Research associate Dr. Adolph Schultz of the Carnegie Institution wrote that there is "irrefutable and abundant proof" for existence of man's embryonic tail which is absorbed into the body as one of many vestigial organs.16 After his discussion of this vestigial tail, Schultz concluded that there is "overwhelming evidence for the only logical assumption that man, as well as monkey, descended from ancestors with well-developed tails."17 Some articles retained their objectivity and presented new studies that concurred with

and supported evolutionary findings.18 But some included more direct attacks on fundamentalists. Before presenting his evidence for new and distinct species continually evolving in the modern world, the Carnegie Institution's Director of the Genetics Department Dr. C.B. Davenport prefaced his case with a reprimand to men of faith:

> The biologist has a faith also which is very precious to him and that faith is based on observation . . . and experimental study . . ., and for him the answers that nature gives to his questions are more significant than the assertions of the clergy.19

All of these articles defend not only John Scopes, but scientific observation and thought; many include the idea of objective scientific truth as a form of religion. Dr. Maynard Metcalf of Johns Hopkins University, in one of the "Statements Prepared for the Defense Counsel," made an impassioned plea for Scopes and for the ideal for which he stood. He wrote, "For a teacher to fail to bear testimony to essential scientific truth is as unworthy, as cowardly, as essentially sinful as for a man to fail to stand by his religion," and further argued that evolution was God's method for creation.20

The compatibility argument was common. Zoology professor Dr. William Patten of Dartmouth College gave an extensive justification for reconciling Christianity with evolution. The laws of nature require unity and harmony, in accordance with "the essence of the moral and ethical teachings of Christianity." He compared the laws of natural selection to the Biblical adage that the branch that does not bear fruit will be hewn.21 Patten

believed that religion and science are inseparable and that the study of evolution should actually "minimize the antagonism" because "it makes life more significant and more beautiful . . . . It helps all of us to understand the purpose of life and how to accomplish it."22

These arguments had to dispel not only religious fears, but egocentric ones. Man does not like to think he is related to apes. Psychology professor Dr. R.S. Woodworth of Columbia University, in his treatise on "The Relationship of Man and Animals," compared familiar animals, making their relationships to each other clear. He made acceptance of the relationships among birds, among mammals and between birds and mammals a matter of common sense.23 He defended the relationships among primates by maintaining that they do not lower man's status; rather, "Once we see that man has an organic place in nature, we have a sense of being at home in the natural world that is a great satisfaction and, I believe, a great spiritual gain." He concluded by asserting that the Bible, a spiritual, not a scientific, guide, leaves the question open and that to drag it into the controversy is only disrespectful to it.24

The compatibility argument also appeared in a reprinted sermon in Christian Century in June. Instead of denouncing evolution along with the fundamentalists, Ernest Tittle argued that evolution must be accepted as fact and that it is compatible with religion.25 Like Woodworth in The Scientific Monthly, Tittle reassured his readers that evolution has nothing to do with the

Bible. He said, "'The Bible was given to tell us how to go to heaven, not how the heavens go.' Is not that another great lesson which some of us need to learn?"26 He further argued that evolution provides a positive support for religion by revealing the process through which God's creative process continually works in the world to elevate and perfect creation. In a refutation of the fundamentalist position, he concluded,

> Why then, should anyone contemplate the fact of evolution with alarm? Far from banishing or even belittling God, it but adds to his glory. Far from degrading or even diminishing man, it but reveals his uniqueness, his imperishable significance. Far from destroying religion, it fortifies it.27

Christian Century continued its pro-evolutionary stance in an editorial published during the Scopes trial. It scorned the sensationalism and publicity surrounding the case. It questioned the worth not of evolution but of the trial.

> It is somewhat difficult to preserve the proper degree of seriousness in the contemplation of the legal battle now being staged to determine the right of a teacher to impart to his students the customary facts of science.
>
> . . . That the trial will determine the merits of the doctrine of evolution no one has the slightest notion . . . . Matters of scientific nature are not determined by . . . the devices of attorneys.

According to this editorial, the only advantage of the trial was that the public would gain some knowledge of natural laws, albeit second-hand and diluted.28

General interest periodicals also derided the circus atmosphere surrounding the trial and sided with the defense. None of them could take the trial seriously because of the fundamentalists' antics and defense attorney Clarence Darrow's snide attitude. Time magazine gave very colorful, detailed reports of the trial, its participants and its spectators. In its

regular "Education" section, it gave glowing and sarcastic accounts of the carnival surrounding the courthouse and of the clothing and actions of the major figures of the trial. For two weeks it described in vivid language the heated exchanges in the courtroom and played them to their fullest comic effect. In one very theatrical confrontation,

> . . . Lawyer Darrow, shambling, leonin counsel for the defense, next besought His Honor to dispense with . . . the long prayers . . . with which the sessions were being opened. Hot words from the prosecution. Hotter words. In the course of this debate, Attorney General A.T. Stewart snapped at defense-counsel Arthur Garfield Hays: "Willyoupleasekeepyourmouthshut?"29

The article continued the description of the proceedings, wryly noting, "The legal aspects of this introduction of testimony were swiftly forgotten."30 After its account of the revivalist, evangelical ravings of the prosecution, Time presented defense attorney Malone almost as a hero, who, "retaining logic in his argument, . . . pleaded for freedom of the mind . . . ."31

Time's decidedly anti-fundamentalist coverage reveled in all of the opportunities for sarcasm that the trial so generously gave. 'The focus and purpose of the sensational stories differed greatly from that of the series in The Scientific Monthly. Scientists were defending scientific thought and fact; reporters were entertaining the nation with a spectacularly theatrical news event. Instead of working to expand the readers' knowledge, Time tailored the theory and the controversy to fit the publics' existing interests.

Scientists and journalists share a common goal to report the

truth completely and accurately, so journalists sympathized with the evolutionists' cause. After the verdict of guilty, Time related a comparison of the Scopes trial to another historic trial. "The parallel, [the scientists] said, fell down in only one important point: Mr. Scopes was given a fine of $100; Socrates was given a cup of hemlock."32

The differences in the style and content of the coverage by general interest periodicals versus the more specialized science and religion periodicals were due to the magazines' audiences, not their stances on evolution. The coverage simply revealed many journalists' discomfort with writing about technically complex topics. The writers were not negligent or wrong for not fully explaining evolution and not challenging their readers to explore it and find their own stance. Writers geared their articles to what their readers' interests and expectations were, unlike the fundamentalists, who tried to shape teachers' lessons according to what they wanted the children to become.

NOTES

1Davis, Watson, "New Light on Evolution," Current History, April 1925, p. 93.

2Ingalls, Albert, "Did Man Evolve in Africa?", Scientific American, May 1925, p. 308.

3Davis, p. 93.

4Ibid., p. 93.

5Ingalls, p. 309.

6Ibid., p. 308.

7Davis, pp. 93-94.

8Ingalls, p. 309.

9Davis, p. 94.

10Ibid., p. 93.

11Ibid., p. 95.

12"Whence Man?," Time, June 1, 1925, p. 16.

13"Is Mr. Bryan Ignorant of Evolution?," Science, March 1925, as reprinted in Scientific American, May 1925, p. 333.

14Ibid., p. 334.

15"Scientist Calls Bryan Religious Menace," Christian Century, Jan. 15, 1925, p. 97.

16Schultz, Adolph, "Man's Embryonic Tail" in "Evidences for Evolution," The Scientific Monthly, August 1925, p. 142.

17Ibid., p. 143.

18Guyen, Michael, "Blood Reactions of Man and Animals" in "Evidences for Evolution," The Scientific Monthly, August 1925, pp. 145-146.

19Davenport, C.B., "New Types of Life" in "Evidences for Evolution," The Scientific Monthly, August 1925, p. 135.

20Metcalf, Maynard M., "The Truth of Evolution" in "Evidences for Evolution: Statements Prepared for the Defense

Counsel, State of Tennessee vs. John T. Scopes," The Scientific Monthly, September 1925, p. 291.

21Patten, William, "Evolution as an Ally of Religion" in "Evidences for Evolution," The Scientific Monthly, August 1925, p. 143.

22Ibid., p. 145.

23Woodworth, R.S., "The Relationship of Man and Animals" in "Evidences for Evolution," The Scientific Monthly, August 1925, pp. 147-149.

24Ibid., p. 145.

25Tittle, Ernest Fremont, "Evolution and Religion," Christian Century, Jan. 15, 1925, p. 763.

26Ibid., p. 764.

27Ibid., p. 766.

28"Editorial: The Commotion at Dayton, Tenn.," Christian Century, July 16, 1925, p. 913.

29"The Great Trial" in "Education," Time, July 27, 1925, p. 15.

30Ibid., p. 15.

31Ibid., p. 15.

32"Dixit" in "Education," Time, Aug. 10, 1925, p. 19.

BIBLIOGRAPHY

Davenport, C.B., "New Types of Life" in "Evidences for Evolution," The Scientific Monthly, August 1925, p. 135.

Davis, Watson, "New Light on Evolution," Current History, April 1925, pp. 93-95.

"Dixit" in "Education," Time, Aug. 10, 1925, pp. 18-19.

"Editorial: The Commotion at Dayton, Tenn.," Christian Century, July 16, 1925, p. 913.

"The Great Trial" in "Education," Time, July 20, 1925, pp. 17 & 28 and July 27, 1925, p. 15.

Guyen, Michael, "Blood Reactions of Man and Animals" in "Evidences for Evolution," The Scientific Monthly, August 1925, pp. 145-146.

Ingalls, Albert, "Did Man Evolve in Africa? An Account of the Remarkable Fossil Man-Ape Recently Discovered in Africa by Professor Dart," Scientific American, May 1925, pp. 308-309.

"Is Mr. Bryan Ignorant of Evolution?," Science, March 1925, as reprinted in Scientific American, May 1925, pp. 333-334.

Metcalf, Maynard M. "The Truth of Evolution" in "Evidences for Evolution: Statements Prepared for the Defense Counsel, State of Tennessee vs. John T. Scopes," The Scientific Monthly, September 1925, p. 291.

Patten, William, "Evolution an Ally of Religion" in "Evidences for Evolution," The Scientific Monthly, August 1925, pp. 143-145.

Schultz, Adolph, "Man's Embryonic Tail" in "Evidences for Evolution," The Scientific Monthly, August 1925, pp. 142-143.

"Scientist Calls Bryan Religious Menace," Christian Century, Jan. 15, 1925, p. 97.

Tittle, Ernest Fremont, "Evolution and Religion," Christian Century, June 11, 1925, pp. 762-766.

"Whence Man?," Time, June 1, 1925, p. 16.

Woodworth, R.S. "The Relationship of Man and Animals" in "Evidences for Evolution," The Scientific Monthly, August 1925, pp. 147-149.